



European Commission

No 27 December 2005

# Fisheries and aquaculture in Europe

○ Protecting resources:  
the Commission takes urgent action



○ **Aquaculture**  
Preventing and eradicating  
epizootic diseases

○ **Eel**  
Global objective,  
local action

○ **Research**  
Reproducing bluefin  
tuna in captivity

# [ Calendar

## Shows and exhibitions

- **General Fisheries Commission for the Mediterranean, ordinary session, Istanbul (Turkey), 24-27 January 2006.**  
Based on the recommendations of the Scientific Advisory Committee, which last met in October 2005, the GFCM will take decisions on the management of certain stocks (anchovy, red mullet, picarel, hake, etc.).

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- **MSE Seafood & Processing, Rimini (Italy), 4-7 February 2006.**

This trade show covers the entire Mediterranean fisheries and aquaculture chain, from production to table.

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Web site: <http://www.medseafood.com>

- **Fish International, Bremen (Germany), 12-14 February 2006.**

Focusing on the commercial and marketing aspects of fishery and aquaculture products, Fish International draws all the leading operators in the European seafood industry.

The programme for 2006 includes a forum on East-West trade.

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## In this issue

2 **Calendar**

3 **Editorial**

4-7 **Fact File**  
**Emergency measures:  
coping with serious and  
unexpected situations**

8-9 **In the news**  
• The health of farmed fish  
• Protecting eels:  
the need for action

10-11 **Out and about**  
**The reproduction of bluefin tuna  
in captivity: promising first results**

12 **In brief**

### Note to readers

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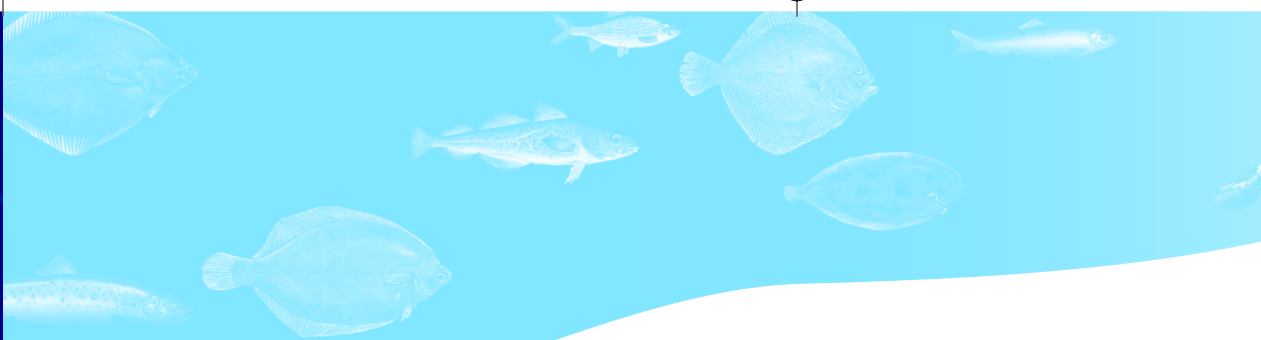
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# Editorial

## Urgency and long-term action

**The** emergency measures the Commission has had to take given the danger of depletion of anchovy stocks in the Bay of Biscay have been in the news in recent months. Fishing has been temporarily banned based on the warnings issued by scientists. The spectacular nature of the measures and their painful impact on the fishermen concerned obviously strike a chord with the public opinion.

Measures like these are taken very rarely, however, and always on the basis of concurring and alarming scientific opinions. They are of course in the interest of fishermen, who would obviously have nothing to gain from the disappearance of a resource from which they earn a living.

Emergency measures are only the first step towards protecting endangered stocks. Those taken for cod in 2001, for example, secured immediate and one-off protection. They were nonetheless quickly followed by longer-term measures, first of a technical nature, then a recovery plan from 2003. The same approach will be used next year for anchovies: the Commission will propose measures to take over from this year's urgent action.

Obviously, the Commission would like to see emergency measures used as rarely as possible. That means working together to protect resources: improving our knowledge, applying catch quotas adapted to the situation of and risks to different stocks, using technical measures or limits on fishing effort where justified, and stepping up controls and penalties for those not abiding by the common rules. Similarly, the general use of long-term management plans (and recovery plans where necessary), as recommended under the CFP reform, aims to prevent the need for emergency measures.

The use of emergency measures should not cast a shadow over the long-term work being done by the Commission, Member States and partners in the sector to support and encourage the development of sustainable fisheries in Europe. Because without resources, there is no future for any fishing activity.

The Editor

# Emergency measures: coping with serious and unexpected situations

The Commission recently implemented an emergency measure to safeguard anchovy stocks in the Bay of Biscay, which are threatened with depletion. The measure temporarily bans anchovy fishing. Against that backdrop, *Fishing and aquaculture in Europe* decided to take a closer look at the concept of “emergency measure”.

## The ban on anchovy

- **Starting date:** 3 July 2005
- **Ending date:** 2 October 2005, extended until 31 December 2005
- **Species concerned:** European anchovy – a short-lived species (three years) that spawns from mid-April to mid-August
- **Fishing area concerned:** Bay of Biscay
- **Alert:** catches dropped by nearly 75% between 2000 and 2004 (from 37 000 to 8 600 tonnes). In 2005, only 230 tonnes were caught up to 31 May, although the Council had authorised fishing possibilities of 30 000 tonnes for the year as a whole. Once Spain had sounded the alert in spring 2005 and after studying the ICES opinion recommending a ban on fishing, the Commission decided on an initial closure of the area from 3 July to 2 October 2005. Two studies conducted subsequently by Spain and France confirmed the poor state of the stock. Based on those studies, a committee of experts convened in July by the Commission in the scope of the STECF confirmed the necessity of closing the fishery.
- **Justification for the ban:** on 12 September 2005, the STECF again voiced its views on the problem. Noting the extremely low levels of adults and juveniles in the anchovy stock, it declared that “*no alternative management measures short of closure should be considered at this time*”. Confirming the ICES assessment, the STECF recommended closure of the fishery until at least July 2006.

## What is an emergency measure?

The European Union, with the adoption of its 1992 basic regulation establishing a Community system for fisheries and aquaculture, introduced the concept of emergency measures for fisheries. Article 15 of that Regulation authorises the Commission, in urgent situations, to “decide on appropriate measures which shall last no more than six months”. The Commission can take such measures on its own initiative. The idea is to enable it to act quickly in response to a “serious and unexpected” situation, the most usual one being the sudden collapse of a stock.

## Why do emergency measures have to be taken? Is it not possible to foresee the collapse of a stock?

Limits on fishing possibilities aimed at safeguarding resources are decided once a year, in December, by the Council of Ministers. They are based on the Commission's proposals, which are backed up by scientific advice. These measures are in principle determined for each stock on the basis of data for the year just ended, which as a general rule leads to reliable projections.

Sometimes, though, unexpected circumstances, whether natural or otherwise, can cause a stock to evolve in an alarming way. Or at times the data available in December may not lead to decisive conclusions, or the Council may simply fail to give sufficient consideration to scientific projections in setting fishing possibilities. A stock can thus suddenly end up in a dangerous situation. And weakened by overfishing, certain stocks can fluctuate unexpectedly. Finally, marine research is taking great strides forward and is daily discovering new interactions between fishing activity and the marine environment. So the public authorities have to be able to deal with an immediate threat to a stock by using rapid decision-making procedures.



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It is nonetheless important to note the exceptional nature of an emergency measure. The reform of the Common Fisheries Policy gives precedence to long-term stock management, advocating the adoption of management or recovery plans. Based on scientific findings, these plans lay down the principles for setting the fishing possibilities for several seasons with the aim of maintaining stocks within safe biological limits. Making them the rule would diminish the need for short-term emergency measures, which would only be used for exceptional situations.

#### **On what data does the Commission base a decision to use emergency measures?**

Emergency measures are always justified and even recommended by very thorough scientific reports. For the two measures for anchovy in 2005, for example, the Commission based its decision on an opinion of the ICES and on the conclusions of a meeting of experts held in the scope of its Scientific, Technical and Economic Committee for Fisheries (STECF).

#### **What procedure is used to introduce emergency measures?**

An exceptional situation warrants an exceptional procedure: the Commission takes a speedy decision on measures that apply for a period of six months at most. Its decision takes effect immediately. It may act on its own initiative or at the request of a Member State whose fisheries authorities have established the existence of a threat to a stock. That is what Spain did last May, after observing the extremely low level of anchovy catches in the Bay of Biscay. Similarly, emergency measures were taken in August 2003 at the request of the United Kingdom to protect deep-water coral reefs from the effects of trawling in an area off the north-west coast of Scotland.



Anchovy fishing in the Bay of Biscay was banned in July 2005 when an alarming decline in catches signalled the critical situation of the stock.





© Nils Auker

### The 2003 ban on cod in the Baltic Sea

■ **Starting date:** 15 April 2003

■ **Ending date:** 31 May 2003

■ **Species concerned:** cod

■ **Fishing area concerned:** Baltic Sea

■ **Alert:** landings of cod from the eastern Baltic cod stock decreased from about 392 000 tonnes in 1984 to a low of 67 000 tonnes in 2002 and for the western cod stock from 54 000 tonnes in 1973 to 22 000 in 2002. Scientific information from the ICES showed that both stocks were overfished resulting in low stock sizes. The situation for the eastern stock gave rise to concerns with scientists warning that if fishing mortality was not reduced the stock would risk collapsing. Central to the problem was the lack of enforcement of quotas and substantial unreported landings.

■ **Justification for the ban:** in spring 2003 large catches of juvenile cod below the minimum landing size were observed. These undersized cod were discarded and therefore not counted against quotas, thus contributing to the overfishing of the stocks. Subsequently, the European Commission decided to ban trawl fisheries to protect young cod. The emergency measure complemented the already existing permanent ban on cod fishing during the summer months (1 June – 31 August).

■ **Follow-up:** in 2004 the extended ban was not renewed – the summer ban remains however – but technical measures were agreed with the industry to make trawl gear more selective. In 2005 three areas were closed to fishing for the entire year. The European Commission is currently preparing a long-term management plan for cod in the Baltic. Central elements of the plan will be implemented as part of the Council Regulation fixing fishing opportunities for 2006. The plan focuses on the reduction of fishing effort and additional control measures.

Based on high catches of juveniles, the Commission decided in spring 2003 to ban trawling in the Baltic Sea to protect cod stocks.

The Member States can challenge an emergency measure, but have to act through the Council. The 25 Member States then have one month to decide, by qualified majority, on a different measure.

#### Are emergency measures used often?

No, they are exceptional in nature and cannot replace long-term action. It was through an emergency measure implemented in 2001, for example, that a moratorium on cod fishing in the North Sea and West of Scotland was introduced to stop the alarming decline in those stocks. Since the reform of the Common Fisheries Policy (December 2002), the Commission has adopted three emergency measures to save endangered stocks or habitats: deep-water coral reefs (2003 and 2004), cod and flatfishes in the Baltic (2003) and anchovy in the Bay of Biscay (twice in 2005). The fishery concerned was each time closed for a period of several months based on concurring scientific opinions.

#### Has the reform of the CFP changed the rules on emergency measures?

The 2002 reform maintained the principle of emergency measures, but made important changes.

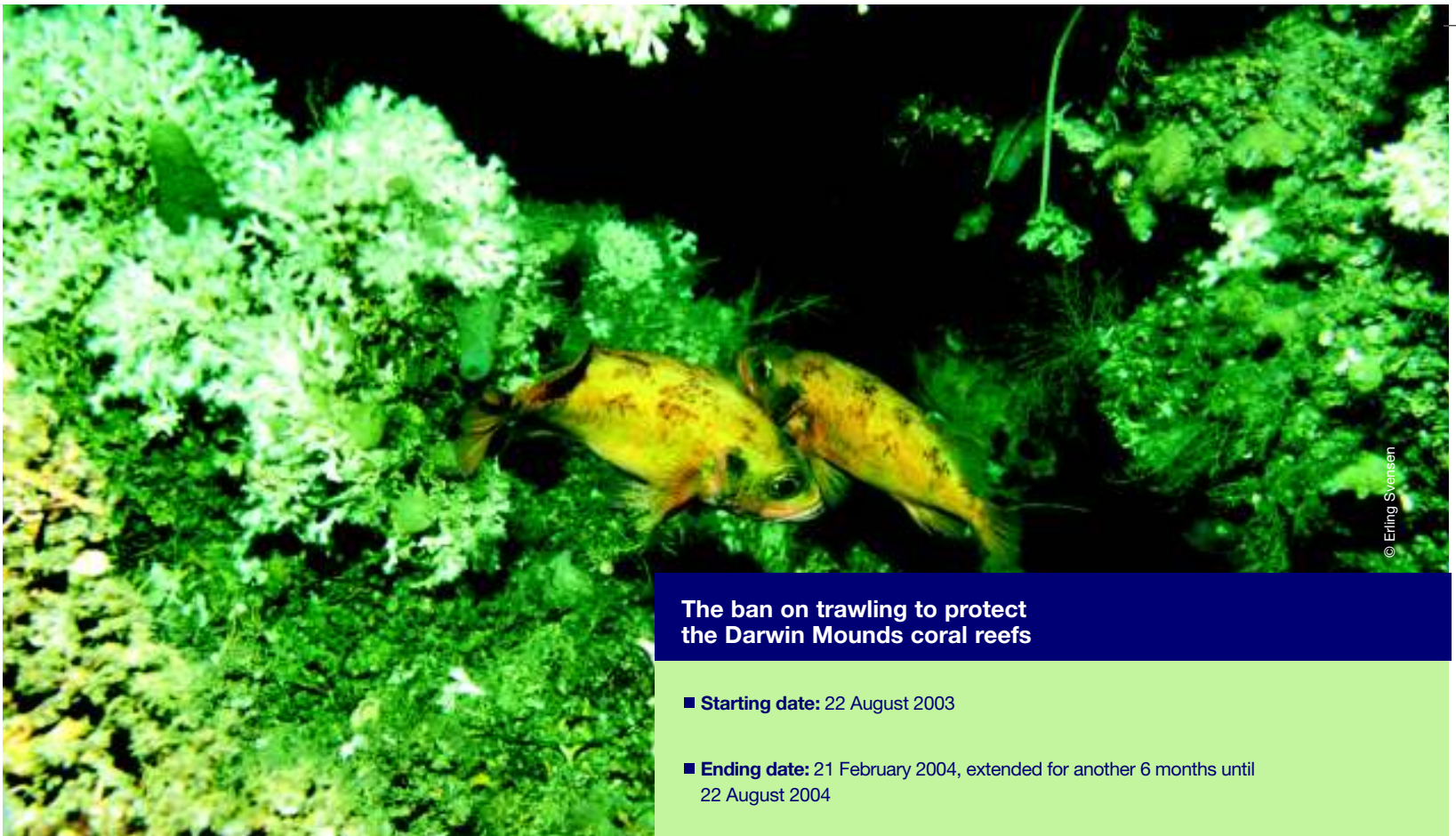
First, the scope of application was widened. Emergency measures are no longer limited to protecting endangered stocks alone, but now concern the ecosystem as a whole. An emergency measure can be taken if a fishing activity constitutes a threat to the marine environment. The Commission banned the use of bottom trawls in the Darwin Mounds<sup>(1)</sup> (August 2003) on that basis, to protect the deep-water coral reefs.

Another important change is that the Commission can now extend an emergency measure one time only. The extension can be for another period of six months at most. For the fishing of anchovy, the Commission successively imposed two closure periods of three months each up until the end of December 2005, at which time the Council will establish fishing possibilities for 2006.

#### Can States adopt emergency measures?

Yes, the 2002 regulation contains new provisions for the Member States. In the wake of the reform, a State can decide on an emergency measure for a period of three months at most. There is one condition, however. The waters concerned must be entirely under its sovereignty (if that is not the case, the State must request the Commission to take the measure). It must naturally notify its decision to the Commission, which has 15 days to confirm, annul or modify the measure.

(1) North-west of Scotland.



© Erling Svensen

Discovered recently by marine researchers, the deep-water coral reefs had to be protected from bottom trawling by an emergency measure adopted in 2003.

The Member State is bound by transparency obligations: whether taking an emergency measure itself or applying to the Commission to do so, it must announce its initiative to the other Member States and to the Regional Advisory Councils (RACs) concerned. The RACs have the chance to submit observations at short notice (five days) to the Commission, which can give account to the positions of the different parties when taking its decision. No Member State has so far used the option created by the reform of enacting emergency measures.

### Does the European Union help the operators who are obliged to apply emergency measures?

Emergency measures can cause major inconveniences in the short term to the operators who have to apply them on the ground. They abruptly halt planned fishing activities and disrupt the whole sector downstream from catching to fish wholesale traders, retailers, processors, etc. They are nevertheless essential to maintaining resources and the permanence of fishing activities.

To help operators cope with this difficult situation, the Member States may benefit from FIGG<sup>(2)</sup> funds. These can be used, for example, to co-finance the temporary cessation of activity for fishing vessels affected by a fishery closure.

## The ban on trawling to protect the Darwin Mounds coral reefs

- **Starting date:** 22 August 2003
- **Ending date:** 21 February 2004, extended for another 6 months until 22 August 2004
- **Species concerned:** deep-water coral reefs. Mainly found at depths between 200 and 1 000 metres
- **Fishing area concerned:** Darwin Mounds, off the north-west coast of Scotland (UK)
- **Alert:** in scientific reports first published in May 2002, ICES reported evidence of damage to coral reefs in the Darwin Mounds. Sidescan sonar and still cameras revealed smashed corals on the sea floor and visible scar marks from trawlers. ICES regarded the Mounds as facing a high risk of further permanent damage. The United Kingdom called on the European Commission to adopt an emergency measure banning the use of bottom trawlers in the coral aggregations of the Darwin Mounds. Based on the evidence provided by the United Kingdom and supported by ICES reports, the European Commission concluded that the coral habitats in question were under serious threat and that immediate action was required.
- **Justification for the ban:** before any long-term measures could be adopted by the Council significant fishing activities using bottom trawls would have continued. The European Commission found it appropriate to prohibit with immediate effect the use of bottom trawls in the Darwin Mounds.
- **Follow-up:** the emergency measure for the Darwin Mounds was made permanent in March 2004 and integrated into an already existing Council regulation on the protection of deep-water coral reefs.

(2) Financial Instrument for Fisheries Guidance.



## ◦ In the news

# The health of farmed fish

**The Commission is proposing new rules on the health of farmed fish to help simplify and modernise legislation. It also wishes to facilitate trade and improve the competitiveness of this important sector. Indeed, the value of European Union aquaculture production in 2004 surpassed EUR 2.5 billion. Some 20% of total production is lost to diseases every year, however. A vital aim of this proposal is therefore to prevent the appearance of diseases at every stage of the production chain.**



With its proposals for prevention measures capable of reducing the risk of epizootic diseases in European fish farms, the Commission hopes to improve the general health situation in aquaculture.

**After** a thorough consultation of the sector, the Commission came forward last August with a proposal to revise and strengthen existing rules on the health of farmed fish and shellfish. The three directives currently in place were adopted 10 to 15 years ago and need to be updated and adapted to changes in the business, in the light of the latest technical and scientific advances. Developed at the time for trout, salmon and oyster farming, the legislation now has to cover new activities developing in this changing industry.

To simplify the rules, the three directives currently in force will be replaced with a single directive. This goal of simplification is also seen in the content of the proposal, which attaches particular importance to flexible implementation of provisions: the local authorities will have responsibility for many disease prevention and protection measures, which will considerably reduce administrative procedures and allow measures to be adapted to the local situation.

### Prevention and trade

The draft directive puts the accent mainly on prevention, relying on the vigilance of the stakeholders closest to the ground, namely the competent authorities at either national, regional or local level depending on the Member State. Their role will be to authorise aquaculture farms and processing businesses, ensure good hygiene practices and compliance with traceability rules, and monitor the evolution of mortality and morbidity rates at each farm. These strict controls are meant to contain any disease as soon as it appears and prevent it from becoming epizootic<sup>(1)</sup>.

Another means of fighting the spread of diseases is to prevent the introduction of infected fish or shellfish into a disease-free area. Accordingly, the Commission's proposal establishes new rules for the sale and import of aquaculture animals and products, with the goal of bringing European regulations into compliance with the new requirements of the International Office of Epizootic Diseases, to which the World Trade Organisation refers.

For EU external trade, an aquaculture animal may only enter the Union from a country or part of a country offering sufficient sanitary guarantees. This evaluation is made on the basis of strict criteria such as legislation, surveillance schemes, etc.

For internal trade, the Commission establishes a basic principle: an animal may be transferred from one Member State to another only if it comes from an area with at least equivalent sanitary characteristics. For example, seabream fry may not be transferred from area X where a disease is endemic to disease-free area Y; the inverse, however, is authorised.

### "Disease-free" areas

This presupposes the existence of categories of health status. For endemic diseases, the Member States may designate "disease-free" areas, where certain diseases do not exist due to geographical and climatic characteristics that prevent their development, because there are no animals susceptible to the disease, or because the State has put in place an eradication programme for the disease. For exotic diseases (which do not exist in the European Union), each competent authority must develop specific contingency plans to confine the infected zones and eradicate the disease as quickly as possible after outbreak.

In case of an epidemic, the Commission proposes eradication rules (compulsory for exotic diseases and optional for endemic diseases) that can include removal and disposal of the infected animals and purification of the waters where the disease developed. Compensation under the European Fisheries Fund may be made available to fish farmers.

If adopted, these proposals will represent real progress towards improving the competitiveness of the aquaculture sector and boosting consumers' confidence in aquaculture products.

(1) Epidemic for animals.



# Protecting eels: the need for action

**The European eel is in danger. The quantity of juvenile eels recently plummeted to as low as only 1% of historic levels. The Commission has proposed measures aimed at developing long-term management to help rebuild the stock.**

**The** International Council for Exploration of the Sea (ICES) concludes in its latest report: *"Eel stock is almost certainly below what would be considered as safe biological limits."* Understanding the dangers threatening this species requires a look at its very specific life cycle.

All eels are born in the Sargasso Sea, in the middle of the North Atlantic. The Gulf Stream carries the larvae to Europe and North Africa. Feeding along shores and in estuaries, they grow into *elvers*, or young eels. After migrating upstream, they settle into the calm waters of rivers, ponds and streams where they become *yellow eels*, or adults. Around 10 years later, they develop into *silver eels*. At that point, they migrate downstream and make the journey to the Sargasso Sea, where they spawn and die. It is throughout the freshwater cycle that eels encounter multiple dangers.

First, there is intense fishing pressure on all eel populations, from elvers to silver eels. And because the species does not reproduce in captivity, wild stocks (especially elver) are used to supply aquaculture.

Both at sea and in freshwaters, eels are also victims of shrinking natural habitats and pollution. When migrating both upstream and downstream, their progress through waterways is hindered by numerous man-made obstacles such as dykes and dams, and there is a high mortality rate among the adult eels making their way to spawning grounds.

All this explains that measures to protect eels have to encompass both coastal zones for juveniles and inland waterways for adults.

After numerous consultations with scientists, representatives of the sector and Member States, the Commission proposed in October last a regulation introducing recovery measures for the European eel stock. This proposal follows on from the action plan the Commission presented in 2003 (see *Fishing in Europe* No 24, December 2004, pp 9-10).

## National management plans

First of all, the draft regulation sets a common objective for the migration of adult eels to the sea for spawning: the *"escapement"* rate for each river basin must be 40% of the number of adult eels that would migrate to the sea under ideal natural conditions, namely in the absence of obstacles to migration, pollution and fisheries.

Due to the variety of habitats and types of eel fishing in the different river basins, measures cannot be identical for all regions. It will therefore be up to the Member States to take adequate measures to attain this objective, such as limiting fishing activity or reducing the different obstacles to migration by restoring habitats, cleaning up polluted areas and installing fish ladders along dams.

Each river basin would have a specific *management plan*. In the basins that extend beyond the boundaries of a single State, such as the Rhine, the Meuse, the Douro or the Tagus, the management plans must be agreed between the different States concerned.

The plans would have to be submitted to the Commission by the end of 2006. After a careful review and approval by the Scientific, Technical and Economic Committee for Fisheries (STECF), they would enter into force on 1 July 2007. The Commission is also considering proposing other measures for the longer term, such as the introduction of a traceability system to prevent fraud or a study of ways to increase the quantity of elver that can be used to improve and conserve the stock.

## A temporary protection measure

The draft regulation proposes a short-term protection measure until the national management plans have been approved by the Commission and put into place: the closure of all eel fisheries from the 1<sup>st</sup> to the 15<sup>th</sup> of every month. Fishing could continue during the closure period in the Member States that have demonstrated that their measures guarantee the 40% escapement rate. Fishing for elver could also continue if these are used to restock rivers but not for aquaculture.

The Commission's proposal has to be approved by Parliament and the Council during 2006 to take effect.

## Out and about

# The reproduction of bluefin tuna in captivity: promising first results

**Last summer, eggs from captive bluefin tuna were successfully fertilised in vitro in Spain. This step towards the reproduction of bluefin tuna in captivity could have important consequences on the future development of aquaculture. The research was conducted under the EU-financed REPRO-DOTT project by a team of Spanish, French, Maltese, Greek, Italian, German and Israeli researchers.**

**Bluefin** tuna farming is a huge challenge for the years to come. The success of this fish on markets worldwide, particularly in Japan and America, has increased its commercial value (see *Fishing in Europe* No 23, September 2004, pp 10-11).

Bluefin tuna farming in the Mediterranean is currently based on fattening the fish in "floating cages". The animals are sometimes caught at a considerable distance from the fattening zone and are brought to the "farm" in specially designed cages towed by a slow-moving boat. The tuna are fattened on sardines and anchovies and placed on the market when their flesh has reached optimal quality capable of satisfying the very specific expectations of gourmets, notably the Japanese.

This type of business is expanding in the Mediterranean because it is very profitable. But this commercial success created the risk of overexploitation of stocks, particularly in the Mediterranean where part of the population migrates every summer to spawn. Alarmed over this situation, the ICCAT<sup>(1)</sup>, GFCM<sup>(2)</sup> and the European Union have adopted rules for the strict management of bluefin tuna, aimed in particular at regulating the fattening activity (caging declaration, sampling procedure, list of authorised farms, monitoring of quantities caged and marketing). Each contracting party has put in place measures such as inspections to reduce catches of juveniles. In 2006, the ICCAT Scientific Committee will assess the bluefin tuna stock and the ICCAT will study the effectiveness of management measures in place.

### Absence of reproduction in captivity

If bluefin tuna reproduced in captivity, domestication and farming could provide a solution by meeting market demand while minimising pressure on wild stocks. Unfortunately, since the first cages were put into use in 1996, there has been no spontaneous reproduction of captive individuals in the Mediterranean.

That is why a large-scale research project aimed at improving understanding of the reproductive cycle of captive bluefin tuna was launched by a consortium



Scientists working on the REPRO-DOTT research project have successfully fertilized bluefin tuna eggs *in vitro*.

of eight marine research institutes<sup>(3)</sup>, of which seven from the Mediterranean area. The REPRO-DOTT project is financed by the European Commission in the amount of EUR 1.5 million under the Fifth Framework Programme for scientific research.

It began in 2003 and will expire at the end of 2005. There is obviously great interest in the project because it is expected to help meet continually rising market demand and ease pressure on a stock that is in danger for the moment.

## A view from the Pacific

In the Pacific region, the Japanese researchers working on the reproduction of Southern bluefin tuna have adopted a different tactic than that of their European counterparts. Indeed, they have opted for control of all environmental conditions, enclosing the tuna in large pens and letting them spend years getting accustomed to their captive environment, which provides optimal conditions of water quality and temperature. Their method has produced results: in June 2002, researchers from Kinki University in Osaka completed the first full reproductive cycle, obtaining eggs from individuals born in captivity. The major constraint of such a method is its unforeseeability in terms of the date of obtaining eggs.

(1) International Commission for the Conservation of Atlantic Tunas – the regional fisheries organisation responsible for the management of tunas and related species in the Atlantic Ocean and adjacent seas, including the Mediterranean.

(2) General Fisheries Commission for the Mediterranean – the regional fisheries organisation responsible for the management of fisheries in the Mediterranean and the Black Sea.

(3) Instituto español de Oceanografía, Universidad de Cadiz, Institut français de Recherche pour l'Exploration de la Mer, Institute of Marine Biology of Crete, Israel Oceanographic and Limnological Research, Malta Centre for Fisheries Sciences, Università degli Studi di Bari and Universität Heinrich-Heine Düsseldorf.



### Three years of research

The scientific consortium worked closely with the tuna fattening companies based in the region of Cartagena, Spain, where this activity began to develop at the end of the 1990s. The research was carried out on their captive specimens, because the consortium opted to conduct its research under the “normal” conditions of fattening in cages, rather than under laboratory conditions.

The first two years of research conducted under the REPRO-DOTT project were spent trying to improve knowledge of the reproductive cycle of bluefin tuna, based on observations and analysis of tissue samples from the reproductive organs. The research thus helped improve biological knowledge, particularly on the species’ maturation cycle.

It is important to realise that fertilization does not take place in the female’s body, but from the contact of sperm and eggs in the marine environment. To simplify, the female releases her eggs which the male then fertilizes by releasing his sperm.

During the third year, the scientists developed and tested means of controlling the reproductive cycle, i.e. of artificially provoking ovulation in the females and the production of sperm by the males. They used a method of hormonal induction of spawning. This consists in using hormonal implants, in other words, substances that are inoculated into the organism to stimulate ovulation and trigger the production of sperm. An implant developed by the consortium ended up attaining the desired result. Ovocytes were collected in the cages and fertilized *in vitro*. The first viable bluefin tuna larvae were born shortly afterwards.

### A long way to go

This result does not, however, mean that bluefin tuna farming is just around the corner. Numerous scientific and technical hurdles still have to be cleared. First, it has to be shown that this experiment can be reproduced with other individuals in other conditions. The different parameters of the experiment will then have to be analysed and translated into a reliable protocol capable of being transposed to other circumstances.

The REPRO-DOTT project ceases with the production of fertilized eggs, moreover. The subsequent stages, including the very delicate stage of hatchery, still have to be studied in other research projects. At this point, there is a need to discover ways and techniques for increasing the number of eggs that hatch, to ensure regular production of larvae with acceptable survival rates, and to provide the best support for their growth, and for the growth of fry, etc.

### Handle with care

A major problem still has to be solved: how to handle these very big animals – an adult weighs from 180 to 400 kg – which paradoxically are very fragile. Simply taking a bluefin tuna out of the water provokes a traumatism that kills it within hours. In the course of the project, many individuals died after being captured and immobilised in preparation for inoculation with the hormonal implants. So the scientists had to invent a method for injecting the implants at a distance, using an underwater shotgun.

This extreme fragility has always been attributed to the stress of captivity. The scientists believe there may be other factors, however. The complete domestication of bluefin tuna will involve increased handling: the introduction of implants, transfers of fry, isolation of breeding stock, care, tissue sampling, etc. So it will be important to understand how this traumatism is fatal to individuals of the species and to come up with means and techniques for remedying the problem.



In the Atlantic-Mediterranean zone, bluefin tuna has never been reproduced in cages until now. The REPRO-DOTT research project aimed to stimulate its reproductive cycle in captivity.

The REPRO-DOTT project already represents an important step towards the development of bluefin tuna farming. Yet it is only a first step. Years of research are still needed before every stage of bluefin tuna farming, from fertilization to slaughter, can be mastered under the best possible conditions.

# In brief

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## > New fisheries agreement with Morocco

The European Union and Morocco signed a new fisheries agreement in July last. The four-year agreement is more modest than its predecessor in terms of quantity. Morocco will open its fishing zones to 119 European vessels (97 small-scale fisheries vessels and 22 equipped for demersal fisheries) and authorise yearly catches of 60 000 tonnes of small pelagic species (sardines, anchovy). In exchange, the European Union will pay annual financial compensation in the amount of EUR 36 million, of which 13.5 million will be earmarked for the development and implementation of Morocco's fisheries policy. Indeed, in accordance with the undertakings made under the reform of the Common Fisheries Policy in 2002, the agreement is not limited to paying for fishing possibilities, but

also seeks to promote cooperation for the development of sustainable fishing practices in Morocco. More specifically, EUR 54 million will be allocated to Morocco's fisheries policy over the four-year period to ensure sustainable and responsible management, in particular modernisation of the inland waters fleet, a programme for the abolition of drift nets, scientific research, training, modernisation of landing infrastructure, commercial development and so on. Once approved in Council, the agreement is expected to enter into force on 1 March 2006. For more information, see the press release of 28.07.05 on the DG Fisheries site:

[http://europa.eu.int/comm/fisheries/news\\_corner/press/index\\_en.htm](http://europa.eu.int/comm/fisheries/news_corner/press/index_en.htm)

## > Recovery plan for southern hake and Norway lobster

In October last, the Fisheries Council adopted the recovery plan for southern hake and Norway lobster in the Cantabrian Sea and along the western coast of the Iberian Peninsula. The Commission proposed the plan in December 2003 based on the scientific advice of the ICES, which on several occasions had drawn the authorities' attention to the dangerous situation of these stocks. The aim of the recovery plan is clear: to restore both stocks to safe biological limits within a decade at most. To attain its objectives, the plan establishes measures that include catch limitations, a reduction in fishing effort and inspections. For Norway lobster, two zones will be partially closed to fishing, one off the north-west coast of Spain and the other south-west of Portugal. To guarantee the benefit of the temporary bans, Spain and Portugal, the two Member States concerned, will have to guarantee that there is no increase in fishing effort in these zones during the part of the year outside the closure period. For more information, see the press release of 25.10.05 on the DG Fisheries site:

[http://europa.eu.int/comm/fisheries/news\\_corner/press/index\\_en.htm](http://europa.eu.int/comm/fisheries/news_corner/press/index_en.htm)

## > Conference on "Legal aspects of the enforcement of the rules of the Common Fisheries Policy"

Organised by the European Commission, this conference was held in Brussels on 20 June 2005. It was attended by more than 100 legal experts (judges, prosecutors, lawyers, legal advisers, academics and members of administrations charged with enforcing Community law in the sector) from most Member States and from Romania. Debate focused on the following aspects: 1. Enforcement of the rules of the Common Fisheries Policy by national administrations and courts (in particular the problem of monitoring fishing activity and penalties); 2. Cooperation between Member States and with the Commission on the enforcement of Community rules for the fisheries sector. The Conference Proceedings are available on the DG Fisheries and Maritime Affairs web site, Events section:

[http://europa.eu.int/comm/fisheries/news\\_corner/autres/autr\\_en.htm](http://europa.eu.int/comm/fisheries/news_corner/autres/autr_en.htm)

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